

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number  
**WO 2005/056278 A1**

(51) International Patent Classification<sup>7</sup>: **B29D 31/00**,  
B29C 35/02, 53/04

[RU/RU]; ul. Vishnevskogo, 10-24, Kazan, 420043 (RU).  
**NIKITIN, Alexandr Vladimirovich** [RU/RU]; ul. S.Halturina, 11/10-60, Kazan, 420032 (RU).

(21) International Application Number:  
PCT/RU2003/000549

(74) Agent: **VOSTRIKOV, Gennadi Fedorovich**; Leningradsky pr., 47-3-215, Moscow, 125167 (RU).

(22) International Filing Date:  
11 December 2003 (11.12.2003)

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

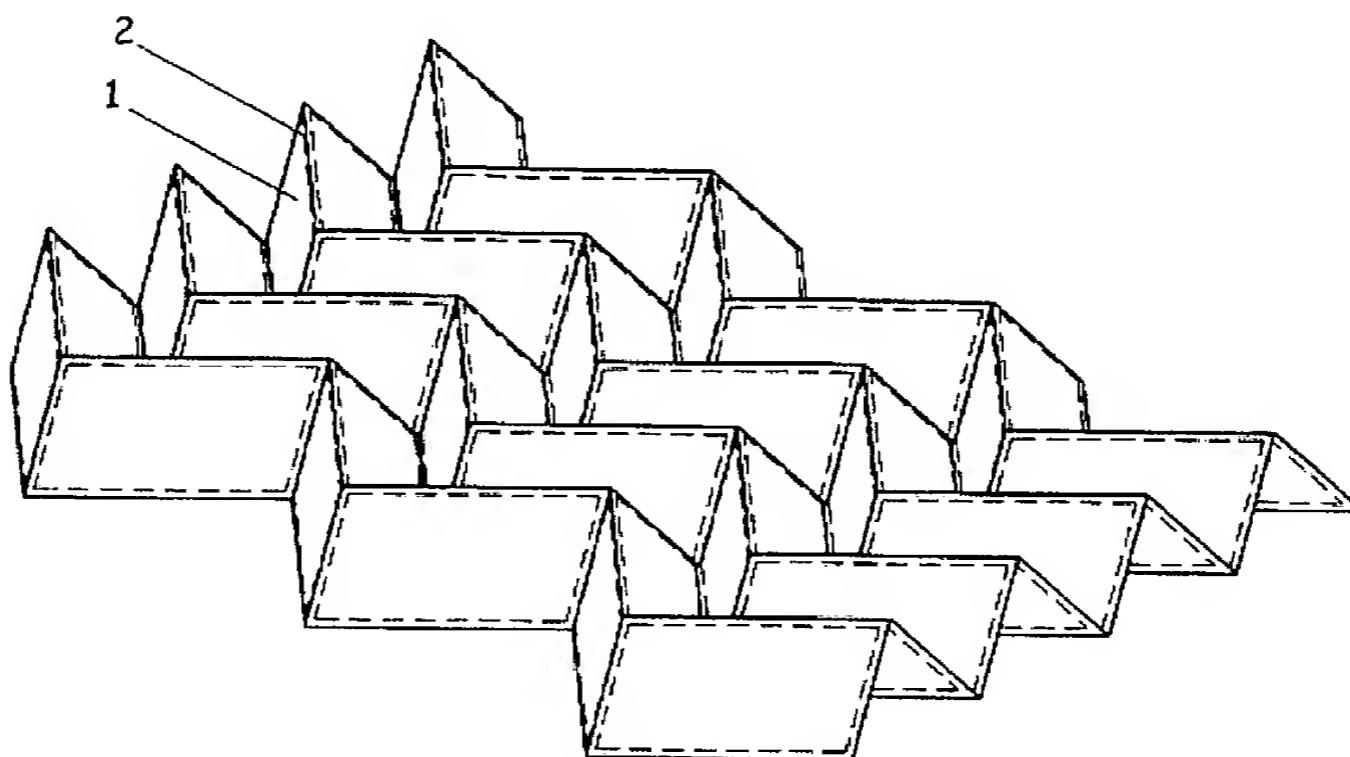
(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

Published:  
— with international search report

[Continued on next page]

(54) Title: METHOD FOR PRODUCTION OF SANDWICH PANEL CORE FROM COMPOSITES



(57) **Abstract:** The invention can be defined in its most general form as a technology for production of corrugated structures from foliated composite materials and can be used for production of sandwich panels used in aircraft construction, shipbuilding, and in building units. Method for production of sandwich panel core from composites including the placing of the blank from reinforcing material, the impregnation of the blank with binder obtaining thus the prepreg, the hardening of the binder in the course of hot-pressing and obtaining of the plane semifinished-blank in the form of a set of relatively rigid parts having the form of the core ridges and detached of one another for some distance, the after-deformation of the semifinished-blank and obtaining the core relief with the required geometrics, and the final hardening of the applied binder involves the impregnation of the reinforcing material with binder along the full surface of the blank, the heat supply for hardening of the binder in the obtained prepreg within the bounds of said parts, and creation of conditions slowing down the process of hardening along the prepreg zones between said parts. The width of the prepreg zones between the parts having the form of the core ridges is provided in the course of hot-pressing and is not less than double radius of the blank material bending at these parts when shaping the core.

WO 2005/056278 A1



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*